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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,775	08/13/2001	Wenjian Gu	02103-415001 / AABOSS39	7636
26162	7590	07/19/2007	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			NGUYEN, TUYEN T	
			ART UNIT	PAPER NUMBER
			2832	
			MAIL DATE	DELIVERY MODE
			07/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/928,775

Applicant(s)

GU ET AL.

Examiner

TUYEN T. NGUYEN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/12/2005 8/9/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The Petition to withdraw Requirement for Restriction filed 07/26/2004 had been considered and the restriction is withdrawn. Claims 1-54 will be examined herewith.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 10-12, 14-16, 18, 23-25, 38-39, 41 and 46-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Kerns [US 3,376,523].

Kerns discloses a transformer [figures 1-4] for use in a power supply circuit including a rectifying circuit, comprising:

- a core structure including first and second core elements [17, 18 or 54, 56];
 - a first shielding device [51] constructed and arranged to electrically shield the first core element from the second core element;
 - a second shielding device [53] constructed and arranged to electrically shield the second core element from the first core element;
 - at least one first coil [19, 21 or 59, 61] wound about the first core element;
 - at least one second coil [22, 23 or 62, 63] wound about the second core element; and
 - input/output terminals [24, 26, 27, 28] connected to ends of the first and second coils;
- wherein the first and second shielding device, each comprises an electrically insulating substrate [57 or 58] and a pattern of electrically conductive material disposed on the substrate.

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Regarding claims 5, Kerns discloses the first shielding device disposed so that the electrically conductive pattern faces the at least one first coil.

Regarding claims 10-12, 23-25 and 46-48, Kerns discloses the first shielding device including first and second surfaces, wherein the conductive material disposed on the first surface and the first shielding device positioned so that the first surface faces the first core portion and the conductive material is in contact with the first core element. Kerns further discloses the second shielding device including first and second surfaces, wherein the conductive material disposed on the first surface and the second shielding device positioned so that the first surface faces the second core element and the conductive material is in contact with the second core element.

Kerns inherently discloses the transformer can be used in a power supply circuit having a switching circuit and a rectifying circuit.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 17, 26-30, 35-37 and 49-52, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerns in view of Fischer et al. [US 3,376,531]

Kerns discloses the instant claimed invention except for the specific use of the transformer in an electronic/electrical device or apparatus and the specific of the conductive pattern.

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The specific intended use of the transformer in a power supply of an electronic or electrical device would have been an obvious design consideration based on the intended applications/environments use.

Fischer et al. discloses a shielding device [figure 3] comprising:

- an insulating layer;
- at least one conductive layer [54, 80, 82] disposed on the insulating layer; wherein the conductive layer form of a plurality of parallel wires and connecting wires interconnecting the parallel wires; and
- an electrical drain wire [90] connected to the conductive layer.

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include a drain wire connected to the shielding device of Kerns, as suggested by Fischer et al., for the purpose of providing better shielding for the device.

The specific arrangement of the conductive wires [traces] would have been an obvious design consideration for the purpose of reducing the thickness of the shielding device.

Claims 6-9, 19-22, 31-34, 42-45 and 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerns in view of Kanbara et al. [US 6,197,408].

Kerns discloses the instant claimed invention except for the specific material for the shielding device.

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Kanbara et al. discloses a shielding device comprising an insulating layer [3] and a conductive layer [2] formed on the insulating layer, wherein the conductive layer formed of indium tin oxide.

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to indium tin oxide for the conductive layer of Kerns, as suggested by Kanbara et al., for the purpose of improving shielding.

Carbon impregnated polymer is a well known material use in semiconductive/insulating substrate.

The specific surface resistivity would have been an obvious design consideration for the purpose of enhancing resistivity in the shielding device.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T. NGUYEN whose telephone number is 571-272-1996. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TN *TN**Tracy Nguyen*

ELVIN ENAD
SUPERVISORY PATENT EXAMINER
12J11427